

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-17. (Cancelled).

18. (Previously Presented) A transmyocardial implant for defining a blood flow pathway directly from a heart chamber through a heart wall to a coronary vessel, the implant comprising:

a coronary portion sized to be received within the vessel;

a myocardial portion sized to pass through the myocardium; and

a transition portion connecting the coronary portion and the myocardial portion, the transition portion defining an opening permitting bending between the coronary portion and the myocardial portion;

wherein the myocardial portion includes a lining for controlling tissue growth in the myocardial portion, and

wherein the myocardial portion includes an agent for limiting thrombus formation.

19. (Previously Presented) The implant according to claim 18, wherein the lining has a length substantially equal to a width of the heart wall.

20. (Previously Presented) The implant according to claim 18, wherein an axis of the coronary portion forms an angle with an axis of the myocardial portion.

21. (Previously Presented) The implant according to claim 18, wherein the myocardial portion is sized to extend into the heart chamber.

22. (Previously Presented) The implant according to claim 18, wherein the coronary portion and the myocardial portion are expandable.

23. (Previously Presented) The implant according to claim 18, wherein the coronary portion is expandable from a first diameter to an enlarged second diameter.

24. (Previously Presented) The implant according to claim 18, wherein the myocardial portion is expandable from a first diameter to an enlarged second diameter.

25. (Previously Presented) The implant according to claim 18, further comprising an agent for encouraging healing.

26. (Previously Presented) The implant according to claim 25, wherein the agent for encouraging healing is a growth factor.

27. (Previously Presented) The implant according to claim 18, wherein the lining contains the agent.

28. (Previously Presented) The implant according to claim 18, wherein the agent is heparin.

29. (Previously Presented) The implant according to claim 18, wherein the agent is an anti-coagulant.

30. (Previously Presented) The implant according to claim 18, wherein the agent is an anti-platelet.

31. (Previously Presented) The implant according to claim 18, wherein the lining includes a polyester fabric.

32. (Previously Presented) The implant according to claim 18, wherein the lining includes PTFE.

33. (Previously Presented) The implant according to claim 18, wherein the lining is on an interior portion of the myocardial portion.

34. (Previously Presented) The implant according to claim 18, wherein the transition portion includes a coil.

35. (Previously Presented) A method for supporting a wall of a vascular structure at an area adjacent an incision in the wall of the vascular structure, the method comprising steps of:

inserting a support through the incision in the wall of the vascular structure while the support is in a low profile orientation;

positioning at least a portion of the support within the interior of the vascular structure; and

moving the support from the low profile orientation into an expanded orientation so as to contact and support the wall of the vascular structure.

36. (Previously Presented) The method of claim 35, further comprising introducing a medical device into the interior of the vascular structure by passing the device through the support.

37. (Previously Presented) The method of claim 36, wherein the vascular structure is a coronary artery and the medical device is a conduit delivery device that is passed through the coronary artery.

38.-40. (Canceled)

41. (New) A method of providing blood flow directly from a heart chamber to a coronary vessel, comprising:

providing a stent that includes a configuration having sufficient radial strength to resist deformation from contractile forces experienced during a cardiac cycle and remain patent when implanted in a myocardial site and having sufficient flexibility in a compressed state to permit passage to the myocardial site, wherein the stent includes a covering on an inner surface portion and an outer surface portion of the stent and an agent for limiting thrombus formation;

delivering the stent in the compressed state into a passage at the myocardial site; and

expanding the stent to deploy the stent in the passage at the myocardial site.

42. (New) The method of claim 41, wherein the covering includes expandable polytetrafluoroethylene.

43. (New) The method of claim 41, wherein the covering includes a material chosen from polytetrafluoroethylene, expandable polytetrafluoroethylene, polyurethane, polypropylene, a biologically compatible paving material, natural tissue, and a polyester fabric.

44. (New) The method of claim 41, wherein the agent includes heparin.

45. (New) The method of claim 41, wherein the covering includes expandable polytetrafluoroethylene and the agent includes heparin.

46. (New) The method of claim 41, wherein the agent is chosen from an anticoagulant agent, an antiplatelet agent, and a fibroblast growth factor.

47. (New) The method of claim 41, wherein the coronary vessel is a coronary artery.

48. (New) The method of claim 41, wherein the heart chamber is a left ventricle.

49. (New) The method of claim 41, wherein the myocardial site is distal to a coronary blockage.

50. (New) The method of claim 49, wherein the coronary blockage is a partial blockage.

51. (New) The method of claim 41, wherein delivering the stent includes delivering the stent percutaneously.

52. (New) A method of providing blood flow directly from a heart chamber to a coronary vessel, comprising:

providing a stent that has a configuration having sufficient radial strength to resist deformation from contractile forces experienced during a cardiac cycle and remain

patent when implanted in a myocardial site and having sufficient flexibility in a compressed state to permit passage to the myocardial site;

applying a covering to the stent;

applying an agent that limits thrombus formation to the stent; and

delivering the stent into a passage at the myocardial site.

53. (New) The method of claim 52, wherein delivering the stent includes percutaneously delivering the stent in a compressed state and expanding the stent to deploy the stent in the passage.

54. (New) The method of claim 52, wherein the covering includes expandable polytetrafluoroethylene.

55. (New) The method of claim 52, wherein the covering includes a material chosen from polytetrafluoroethylene, expandable polytetrafluoroethylene, polyurethane, polypropylene, a biologically compatible paving material, natural tissue, and a polyester fabric.

56. (New) The method of claim 52, wherein the agent includes heparin.

57. (New) The method of claim 52, wherein the agent is chosen from an anticoagulant agent, an antiplatelet agent, and a fibroblast growth factor.

58. (New) The method of claim 52, wherein the coronary vessel is a coronary artery.

59. (New) The method of claim 52, wherein the heart chamber is a left ventricle.

60. (New) The method of claim 52, wherein the myocardial site is distal to a coronary blockage.

61. (New) The method of claim 60, wherein the coronary blockage is a partial blockage.

62. (New) A conduit for providing blood flow directly from a heart chamber to a coronary vessel, comprising:

a stent that includes a configuration having sufficient radial strength to resist deformation from contractile forces experienced during a cardiac cycle and remain patent when implanted in a myocardial site and having sufficient flexibility in a compressed state to permit passage to myocardial site,

a covering on an inner surface portion and outer surface portion of the stent, and
an agent that limits thrombus formation.

63. (New) The conduit of claim 62, wherein the covering includes expandable polytetrafluoroethylene.

64. (New) The conduit of claim 62, wherein the covering includes a material chosen from polytetrafluoroethylene, expandable polytetrafluoroethylene, polyurethane, polypropylene, a biologically compatible paving material, natural tissue, and a polyester fabric.

65. (New) The conduit of claim 62, wherein the agent includes heparin.

66. (New) The conduit of claim 62, wherein the agent is chosen from an anticoagulant agent, an antiplatelet agent, and a fibroblast growth factor.

67. (New) The conduit of claim 62, wherein the covering includes expandable polytetrafluoroethylene and the agent includes heparin.

68. (New) The conduit of claim 62, wherein the covering is impregnated with the agent.